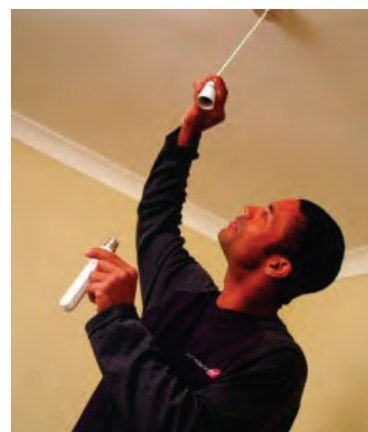


## Arun District Council

# Energy Efficiency and Fuel Poverty Strategy

2014 - 2019



Private Sector Housing  
& Public Health  
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## Executive Summary

The UK has committed to some very ambitious national carbon reduction targets as part of global commitments to climate change. The UK also has some of the oldest housing stock in the developed world and the vast majority of these buildings will still be here in the next 50 years; it is crucial that the energy efficiency and carbon emissions of these existing homes is tackled if the UK is to meet and sustain the carbon reduction and fuel poverty targets

Fuel poverty is a growing issue of concern in the UK and can have a number of serious negative effects on health and housing. Whether the situation occurs in a small or large home, energy efficiency has a clear role to play in assisting these households, insulating them from the cold as well as the effects of rising energy prices.

A new definition of fuel poverty was adopted in 2013 following recommendations from Professor Hills. As part of his findings Hills suggested that not only a new definition is needed but also a new understanding of fuel poverty is required; recognising it as a relative and structural issue. He also suggests a different focus for action, focusing on mitigating the problems rather than trying to eradicate the issue.

The Department of Energy and Climate Change's (DECC) latest statistics for 2011 revealed that under the new definition of fuel poverty 5,500 (8.2%) households in Arun District are defined to be living in fuel poverty, compared to 8,035 (12.1%) who were identified under the previous definition. The majority of the defined "fuel poor" households has now shifted from those mainly containing older people to higher instances of defined "fuel poverty" amongst households containing families with children. While the numbers of defined poor households may have dropped, the figures for the Arun District are still higher than the West Sussex average and there are also a number of households living in fuel poverty that don't get captured by collected data due to widespread under heating of properties. The new definition should prove more helpful in tackling fuel poverty and identifying vulnerable households in the Arun District who may not have been captured under the old definition

Local authorities have been recognised as playing a key role in contributing to the UK's ambitious national carbon reduction targets, reducing fuel poverty and improving energy efficiency of residential accommodation in their areas. In addition to the required Home Energy Conservation Act (HECA) report for the Arun District, and to follow the now expired energy efficiency and fuel poverty strategies for the District, the new Arun District strategy for 2014-2019 will be a combined Energy Efficiency and Fuel Poverty Strategy. It will address more specific local information and detail and will greatly expand on measures included in the Council's HECA report.

Recognising that energy efficiency actions can have multiple benefits for the local area; environmentally, socially and economically, this strategy explains the local impact and extent of fuel poverty in across the District and identifies the opportunities for energy efficiency action in the area. This includes details of local work streams and programmes already in place which are addressing these issues such as Arun

Wellbeing, the Housing Health and Safety Rating System (HHSRS), Landlord Accreditation, Decent Homes, Think Family.

In 2012, the Government introduced the Green Deal: a new, long term market-based initiative aimed to start a national green refurbishment revolution. Alongside this, new obligations referred to as “ECO” were placed on energy companies to provide non-repayable grant funding for heating and insulation to very vulnerable households living in fuel poverty but also to part-subsidise Green Deal finance for hard to treat properties.

During 2013, West Sussex County Council (WSCC) secured the services of Carillion Energy as a private sector delivery partner to work on a long-term partnership with all the local councils in the area and building on existing networks and partnerships to deliver large-scale eco-refurbishment in a socially responsible manner. This will include renewable energy, heat and non-domestic energy schemes financed through all available means including, but not limited to, the Green Deal and ECO. Arun District Councillors made a decision in early 2013 to be an “Affiliate partner” to the Sussex-wide scheme and intend to work closely with WSCC and Carillion Energy to deliver many of the energy efficiency and fuel poverty actions laid out in this strategy’s action plan for the Arun District.

In addition to the annual action plan which describes future activities and ambitions for the area, also included in the appendices are past achievements and projects for the district to inspire and highlight past achievements, fuel poverty data for the District and a glossary of energy terms.

The action plan for the strategy will be reviewed annually and updated against previously set targets and a revised action plan produced for the next year. However a detailed review of the strategy itself will take place in 2019 with implementation from 2020.

## **1. Introduction & Background**

This document sets out Arun District Council's strategy in relation to both energy efficiency and fuel poverty for the period 2014-2019. The strategy sets out the overall task that is currently being faced, beginning with a brief overview why energy efficiency and fuel poverty have become such important issues in modern times and how the Arun District compared to the rest of the UK. The strategy highlights the key areas of work where the Council is targeting energy efficiency and fuel poverty and future opportunities for further work. The strategy elaborates on the Council's HECA report and includes a detailed, annually updated action plan of planned activities and campaigns.

### **1.1. Energy Efficiency**

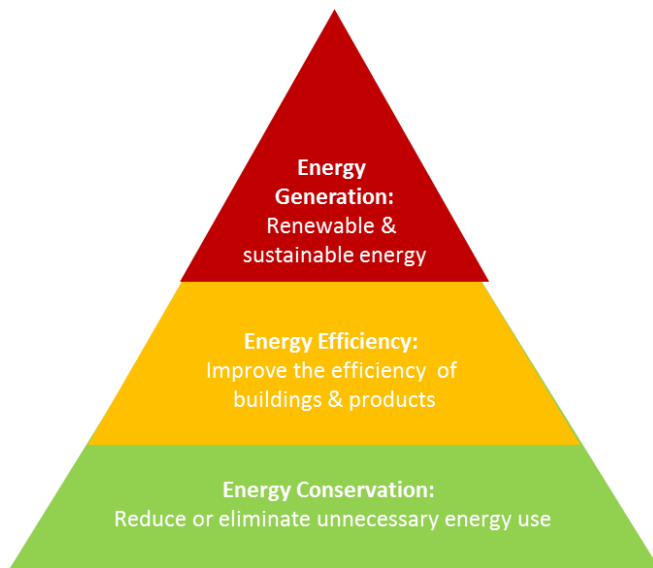
Energy is a fundamental part of our way of life; powering appliances, heating homes and running industry. Energy is not a luxury; it is essential to society and the UK economy. In challenging economic times it is even more important that energy remains affordable to all, but while also making sure environment pollution and climate change is addressed to reduce the harmful emissions that are affecting our environment and the whole planet.

The UK has some of the oldest housing stock in the developed world; over half of the 25million plus homes are more than 50 years old. Generally the existing housing stock has poor energy efficiency, in fact in West Sussex, housing accounts for about 20-25% of the County's carbon emissions. Given that the vast majority of these buildings will still be here in the next 50 years, it is crucial that the energy efficiency and carbon emissions of these buildings is tackled if the UK is to meet and sustain its carbon reduction and fuel poverty targets.

Energy efficiency is a measure of energy used for delivering a given service. So improving energy efficiency is simply a means of getting more from the energy that we use, but there are a number of different ways to improve energy efficiency. For example, 'Innovation' can lead to the equal or greater output with less energy, 'Cutting out wasted energy' reduces energy needed while maintaining output and 'modern technologies' such as heat pumps, can deliver greater heating output for less supplier energy than other heating technologies.

Energy Efficiency is not just for environmental and health purposes, finding ways to do more (or the same) with less makes economic sense too; it can help households and businesses reduce their energy bills at a time of increasing energy prices. Lower domestic energy bills can lead to higher disposable incomes that can be spent elsewhere in the economy. Simple changes in energy use behaviour can deliver some of these benefits with little up-front cost. But also longer term investment in energy efficiency technology can help innovation and lead to cost reductions which can make it cheaper and easier to invest in energy efficiency in the future.

When approaching energy efficiency, the basic principles of the energy hierarchy should be applied when deciding on priorities; seeking first to reduce energy use before meeting the remaining demand by the cleanest means possible. By prioritising demand-side activities to reduce wastage and improve efficiency, the hierarchy offers an easy to use approach to many different sectors of energy management.



**Figure 1:** The Energy Hierarchy (Prioritise from the bottom first)

### 1.2.Fuel Poverty

Fuel poverty is a growing issue in the UK and is closely linked to a number of health and housing problems. Tackling fuel poverty is generally about helping people on low incomes who cannot keep their homes warm at reasonable cost. However it is important to recognise that fuel poverty is a distinct issue from more general poverty and the Government have clarified that it should not be considered that all low income households are living in fuel poverty. There is a growing body of evidence that certain vulnerable groups, such as households with older people and children, are at the most at risk of health detriments associated with cold homes, such as respiratory and cardiovascular illnesses.

There are many other negative effects on wellbeing of people of all ages as a result of living at risk of or in fuel poverty, both direct and indirect. Other negative effects of fuel poverty include social isolation, mental health problems and particularly for children, it can lead to wider problems such as underachievement in school. Whether the situation occurs in a small or large home, energy efficiency has a clear role to play in assisting these households, insulating them from the cold as well as the effects of rising energy prices. In fact, improving the energy efficiency of the home is often the most cost-effective way of making a sustained reduction in household heating costs and removing that household from fuel poverty.

## 2. Strategic Aims

The primary aims of the strategy for addressing energy efficiency and fuel poverty in the Arun District are listed below. The action plan in appendix 1 details the objectives connected to these aims; the action plan will be used to monitor the progress and success in delivering these objectives.

- To contribute towards reducing Greenhouse gas emissions in buildings by at least 20% of 2010 levels by 2027 as part of the UK carbon plan
- To encourage and support the insulation of any remaining cavities and lofts in the District
- To encourage and support the uptake of solid wall insulation in the District
- To encourage and support the uptake of domestic renewable energy systems for both heat and electricity generation
- To further improve the energy efficiency of the Council's own housing stock
- To target areas known to contain Hard To Treat (HTT) homes that might be eligible for Energy Company Obligation (ECO funding)
- To work towards reducing number of people living in fuel poverty across West Sussex using both practical and behavioural measures
- To work towards the Council's wider priority of providing help to those in need



### **3. National Fuel Poverty and Energy Efficiency Legislation**

Traditionally the energy efficiency strategy and fuel poverty strategies have been separate documents, discretely addressing the two areas of work. However in recent years and with the support of the department of Energy and Climate Change (DECC), which was only created in October 2008, a number of policies now support both areas of work in parallel. Whilst targets for carbon reduction and fuel poverty remain separate, due to the opportunities available, it is now a logical step for local authorities to address both energy efficiency and fuel poverty in tandem. This next section will provide a brief overview the national legislation on carbon reduction, energy conservation and fuel poverty that have been introduced and the associated policies and targets.

#### **3.1.Climate Change and Carbon Reduction**

The requirement to improve the energy efficiency of homes stems from the legal requirements to reduce carbon dioxide (CO<sub>2</sub>) emissions set out in the Climate Change Act 2008 and the government's Carbon Plan, published in 2011. The Carbon Plan sets the following targets in relation to housing:

- To reduce greenhouse gas CO<sub>2</sub> emissions by 29% by 2017, 35% by 2022, and 50% by 2027 – for buildings this means a reduction between 24% and 39% lower than 2009 levels by 2027
- To insulate all cavities and lofts, where practical, by 2020;
- By 2030, between 1 – 3.7m additional solid wall installations and between 1.9 - 7.2m other energy efficiency installations;
- By 2030, 1.6m - 8.6m building level low carbon heat installations such as heat pumps; and
- By 2050 emissions from UK buildings to be “close to zero”.

#### **3.2.Home Energy Conservation Act**

The Home Energy Conservation Act (HECA) 1995 recognises local authorities' ability to use their position to significantly improve the energy efficiency of all the residential accommodation in their areas. In July 2012 the Department for Energy and Climate Change (DECC) introduced a new requirement for further HECA reports to be produced biennially by English Local Authorities, commencing March 2013.

The first further HECA report covers the period 2013-2015 and outlines the Council's ambitions for energy conservation measures, based on what will be practicable, cost-effective and likely to result in significant improvement in the energy efficiency of residential accommodation in the Arun District. Subsequent biennial reports will follow thereafter. HECA reports will be published on the Council's website and can be found using the shortcut; [www.arun.gov.uk/energy](http://www.arun.gov.uk/energy).

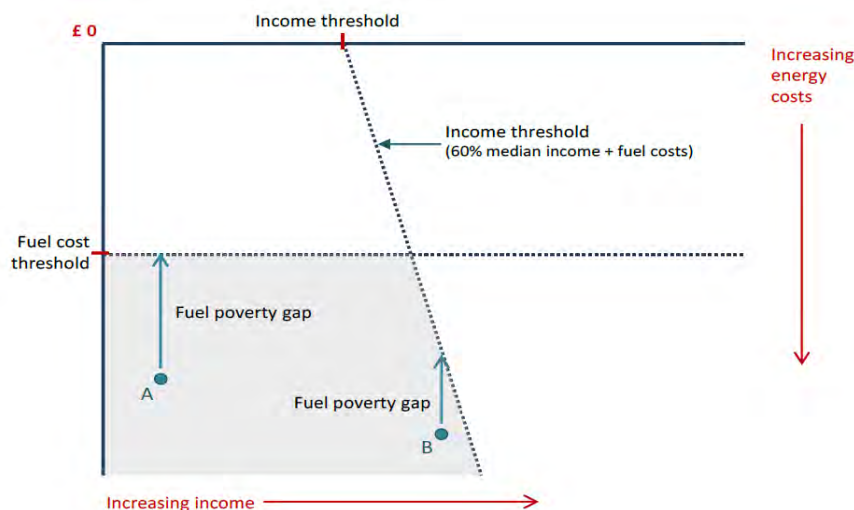
#### **3.3.Warm Homes & Energy Conservation Act**

The Warm Homes and Energy Conservation Act 2000 placed a duty on Government to have a strategy for making sure no person lives in fuel poverty, as far as is reasonably practicable, by 2016.



Between 2000 and 2013, a fuel poor household was defined simply as one that has to spend in excess of 10% of their disposable income on all fuel use in order to maintain a satisfactory heating regime. However in 2010, the Government expressed concern regarding the growth and extent of fuel poverty in the UK and so commissioned an independent review to better understand the problem being faced. Professor Sir John Hills carried out the review and produced a detailed report in mid-2013 including proposals that to truly understand the problem that the actual definition of a fuel poor household needed to be changed and recognising that the number of people in fuel poverty is highly sensitive to (and dominated by) changes in energy prices. Hill's report can be downloaded from [www.gov.uk/government/publications](http://www.gov.uk/government/publications)).

Following Hill's recommendations, in July 2013 the Government adopted a new definition of fuel poverty referred to as the "Low Income High Cost Indicator" (LIHC) to replace the 10% definition. The LIHC finds a household to be fuel poor if their income is below the poverty line (taking into account their energy costs); and their energy costs are higher than is typical for their household type. One of the biggest differences with this new measure is the introduction of a new indicator the "fuel poverty gap"; this is presented both as an aggregated total and a mean value. This new indicator relates to the fuel poverty experienced by each household. The fuel poverty gap for a particular household is the difference between the household's required fuel costs and what these costs would need to be for them not to be in fuel poverty. For example on the graph seen in figure 2, although House B has higher fuel bills it has a smaller fuel poverty gap due to its higher income, whereas Household A has lower fuel costs but a far lower income which means the gap is larger.



**Figure 2:** Representation of the Low Income High Costs (LIHC) indicator and fuel poverty gap (the bottom left quadrant represents fuel poverty while the blue arrows show the new measure fuel poverty gap)

The Government has also proposed amendments to the Warm Homes and Energy Conservation Act, including removing the 2016 fuel poverty eradication target but at the time of writing this strategy, the details of which are yet to be revealed.

### **3.4.Public Health - Cold Weather Plan**

The Cold Weather Plan for England was first published in November 2011. Revised each year, the plan builds on the experience from previous years of developing and improving the ability of the NHS and its partners to deal with significant periods of cold and wintery weather. It aims to prepare for, alert people to, and prevent the major avoidable effects on health during periods of severe cold in England.

To support the aims of the Cold Weather Plan, the Department of Health (DoH) established the Warm Homes Healthy People Fund for winter 2012/13. The aim of the fund was to support local authorities and their partners in reducing death and morbidity in England caused by cold housing in the coming winter. It is expected that any similar public health funding provided for people at risk of cold weather in future will need to be provided locally by public health departments within local authorities.

### **3.5.Green Deal & the Energy Company Obligation (ECO)**

In October 2011 the Government introduced the Energy Act, a corner stone of which is the Green Deal: a new, long term market-based initiative aimed to start a national green refurbishment revolution. Properties will be assessed by a trained Green Deal Assessor who will create an impartial Green Deal Advice Report (GDAR). The cost and pay-back period of identified improvements will then be calculated and Green Deal finance can be offered to cover the upfront cost which would be paid back over a period of time through the resulting savings on the occupant's energy bill. The bill-payer is not liable for the full capital cost of the measures and the loan stays with the property should the occupier move. The entire scheme is based on a 'golden rule' that installed energy efficiency measures must be able to pay for themselves within a sensible timescale, based on the energy reduction they can provide.

The new Energy Company Obligation (ECO) on the major energy suppliers supersedes both the Carbon Emission Reduction Target (CERT) and the Community Energy Saving Programme (CESP) and was introduced to lie alongside the Green Deal. The ECO covers two areas of need; providing non-repayable grant funding for heating and insulation to very vulnerable households living in fuel poverty but also part-subsidising Green Deal finance for hard to treat properties that otherwise will not meet the golden rule due to high overall cost of the work. The specific elements of ECO for low-income vulnerable households include:

- The Home Heat Reduction Obligation (HHCRO) which is designed to provide free heating and hot water saving measures, insulation, glazing and micro-generation heat technologies to low-income and vulnerable households living in private sector housing and receiving means tested benefits. People meeting the income/benefit criteria have been termed the "Affordable Warmth Group".
- The Carbon Saving Communities Obligation (CSCO) is designed to provide free insulation and glazing measures for cross-tenure programmes in economically disadvantaged areas of the UK. Areas are predominately identified as the bottom 15% of the UK's most deprived communities based on the Indices of Multiple Deprivation (IMD). Due to the lower density of housing in more rural areas, the use of IMD to identify fuel poor households is not considered appropriate. Therefore within the CSCO is also a specific target

which states that 15% of the obligation must instead be targeted at “affordable warmth group” qualifying households which are located in rural communities that have a population of less than 10,000.

The Arun District contains 7 of the 12 CSCO areas identified in the county of West Sussex. The locations of which and indications of the roads contained in those areas can be seen in appendix 2. With the exceptions of the greater Bognor Regis and Littlehampton areas, almost all of the rural villages in the Arun District have a population of less than 10,000.

Arun District Council’s future intentions for endorsing and promoting the Green Deal and bringing ECO funds in the District are explained further in section 7.4.

## 4. Local Carbon Emissions & Fuel Poverty Statistics

Following the introduction of the most recent legislation and obligations, there are now a number of new potential opportunities to bring substantial funding and improvements to properties in the Arun District and help alleviate fuel poverty and reduce carbon emissions. This section of this strategy shows the local statistics for carbon and fuel poverty in the District, which will help ensure that resources and messages are targeted appropriately across the District.

### 4.1. Carbon Emissions Statistics

National Indicator 186 referred to per capita reductions in CO<sub>2</sub> emissions as an indicator of the impact of actions being taken by communities to reduce carbon emissions and mitigate against climate change. In 2010 the Government removed the requirement for Local Authorities to report on national indicators, however per capita carbon data continues to be collected and reported centrally on an annual basis by DECC. Reporting relies on centrally produced statistics to measure end user CO<sub>2</sub> emissions in the local area; unfortunately and similarly to the fuel poverty data, there is a long reporting time lag of almost two years.

Whilst there is little influence the Council can have on de-carbonising some elements of commercial and transport sectors, the Council is in a good position to influence carbon reduction through energy efficiency in the domestic sector and the Council's own buildings. Evidence shows a trend of reduced domestic emissions against the 2005 baseline, but there is much more that can still be done to reduce these figures further.

| <b>Tonnes of CO<sub>2</sub> per capita</b>            | <b>(Baseline) 2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> | <b>2011</b> |
|---|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Industry, commercial, transport &amp; Domestic</b> | 6.0                    | 5.9         | 5.6         | 5.5         | 4.9         | 5.1         | 4.6         |
| <b>Domestic Sector only</b>                           | 2.5                    | 2.5         | 2.4         | 2.4         | 2.2         | 2.3         | 2.0         |

**Figure 3:** Annual per capita reductions in CO<sub>2</sub> emissions for the Arun District

### 4.2. Fuel Poverty Statistics

In 2010 the Council's House Condition Survey estimated that 10.3% of households in Arun were at risk of fuel poverty. This figure was based on those properties that provided income information. As many households refused to provide their income data, this information is less statistically reliable than the other data contained within the report. The next House Condition Survey is expected to be carried out in 2015.

Since 2008, DECC (the Department of Energy and Climate Change) have published annual sub-regional fuel poverty statistics for every local authority area in England. An overview of the fuel statistics for the Arun District comparing local stats to national trends can be seen in Figure 4 below. DECC's statistics were produced from

analysing real data collected from the annual English House Condition Survey and energy companies, which was modelled to Local Super Output Area (LSOA) level using the “10% definition” of fuel poverty.

| <b>DECC Reporting Year<br/>(using 10% definition)</b> | <b>Total number<br/>of Households<br/>in District</b> | <b>Number of Fuel<br/>Poor Households<br/>in District</b> | <b>Percentage<br/>in Fuel<br/>Poverty in<br/>District</b> | <b>Percentage<br/>in Fuel<br/>Poverty in<br/>England</b> |
|---|---|---|---|--|
| 2008 (published 2010)                                 | 65,205  | 7,338   | 11.3%   | 16.4%  |
| 2009 (published 2011)                                 | 65,714  | 9,295   | 14.1%   | 19.3%  |
| 2010 (published 2012)                                 | 65,525  | 8,807   | 13.4%   | 17.0%  |
| 2011 (published 2013)                                 | 66,657  | 8,035   | 12.1%   | 15.3%  |

**Figure 4:** DECC Sub-regional Fuel Poverty statistics for Arun District 2008-2011

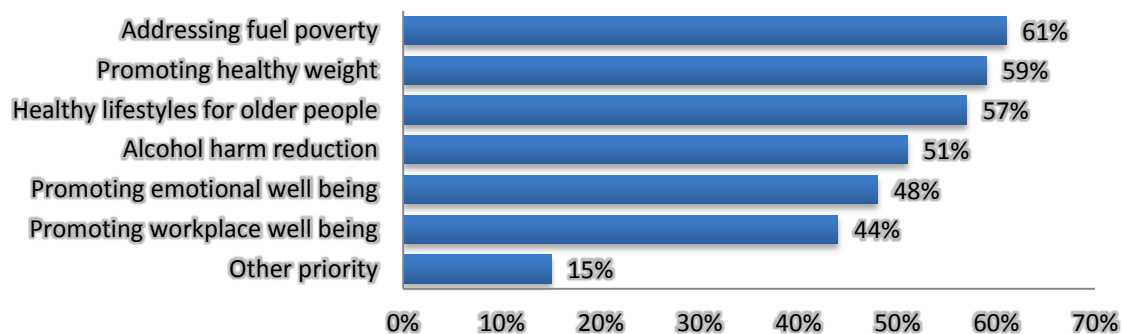
One of the significant recommendations of Hills fuel poverty report, explained in section 2.0 was that to ensure policies are geared towards the needs of the fuel poor and that it is vital for low-income households with unreasonable energy costs to be the central focus of policies and actions. He suggested that a new understanding of fuel poverty is required; recognising it as a relative and structural issue. He also suggests a different focus for action, focusing on mitigating the problems rather than trying to eradicate the issue. Fuel Poverty statistics for the Arun District under the old 10% definition tended to highlight areas of the District containing many under-occupied large houses containing older people who are asset rich but cash poor rather than low income families. These households are likely to spend a large amount on energy bills to keep such houses warm and encouraging those households to improve the energy efficiency of their homes in both measures and behavioural change can help reduce their energy bills.

It is important to note that just the adoption of Hills new fuel poverty definition has significantly reduced the figures for incidences of defined “fuel poor” households because of the new way a fuel poor household is calculated. This means there are now reduced numbers of defined “fuel poor” households containing older people instead but higher instances of defined “fuel poverty” amongst families with children. However the new definition should prove helpful in improved identification of vulnerable households in the Arun District who may not have been captured under the old definition. Whilst encouraging the installation of energy efficiency measures and adoption of behavioural change can help these households, other assistance such as increasing their household income is also important. Unfortunately a number of households in the Arun District will never be statistically identified as living in fuel poverty under either definition due to widespread under-heating of properties in an attempt to reduce household expenditure. Appendix 5 shows the detailed breakdown of fuel poverty in the District shown at LSOA level showing results using both definitions for 2011 data and appendix 4 shows the data in thematic maps.

Under the new Hills fuel poverty definition, DECC’s new statistics for 2011 revealed only 5,500 (8.2%) households in Arun District are now considered in fuel poverty, rather than 8,035 (12.1%), but this is still higher than the West Sussex average. Overall fuel poverty in the Arun District ranges from 2.6% (less than 16 households) to 14.4% (70 to 116 households) per LSOA area (LSOAs contain an average of 600 households).

Crawley Borough ranks lowest at 2,270 households (5.3%), whilst Chichester District and Worthing Borough rank at 4,260 (8.6%) and 4,280 (9.3%) respectively). The Arun District contains the largest number of fuel poor households compared to all other West Sussex Local Authorities. The above percentage's are relative to the overall population of the local authority, which is why Chichester and Worthing's percentages are higher, but their number of households in fuel poverty is lower.

To further highlight the demand to target fuel poverty in the Arun District, the Council's most recent customer insight survey, which uses the Council's Wavelength Panel, revealed a high proportion of residents who from a wellbeing perspective consider addressing fuel poverty a high priority for the Council.



**Figure 5:** Results of 2013 Arun Wavelength customer survey from section on the Wellbeing programme's six priorities for 2013/2014. (Q. How important do you feel these are? - % extremely/very important)



## **5. Minimum Energy Standards for Housing in the Arun District**

There are over 10,000 households renting privately in the Arun District – 15% of the housing stock. Rented homes include a large number of households in fuel poverty; many are so cold and poorly insulated they are a health hazard and cost a huge amount to heat. The private and social rental sectors also contain some of our most vulnerable residents.

A problem often found in the rental sector is the "split incentive" which has been repeatedly identified as a reason why privately rented stock performs less well than owner occupier sectors. Landlords traditionally are required to pay for energy efficiency measures such as better insulation or windows or new heating systems and boilers, but it is the tenant who reaps the physical comfort of better heating or the financial benefit of lower fuel bills. The Green Deal and ECO will offer a number of new opportunities to address the split incentive but there are also a number of other underplayed benefits to improving the efficiency of a rental property that can be used to motivate landlords; including lower churn of tenants, reduced chances of rent arrears and long-term physical benefits to the property such as reduced condensation and mould. Where motivation is still not enough there are minimum standards that can be enforced by local authorities. This section explains the various policies and programmes that will be used by the Council to help improve the energy efficiency standards of housing in the District, in particular the private rental sector.

### **5.1. Private Sector Housing Enforcement Action**

The introduction of the Housing Health and Safety Rating System (HHSRS) in 2006, following changes to part 1 of the Housing Act 2004 provided Local Authorities with new powers to effect improvements to the thermal environment of dwellings. The "excess cold" hazard is the highest scoring of the 29 identifiable hazards under HHSRS and is the most prevalent. However it should be noted that the guidance on HHSRS encourages more emphasis on hazards that are threats to health safety rather than comfort or convenience for the occupiers of the property.

Since its introduction, Arun District Council's Private Sector Housing team have been responsible for the enforcement of HHSRS in the district. With the Council's Energy Efficiency Officer also based in this team, Officers work together to ensure excess cold hazards continue to be identified and improved in the most practicable and appropriate ways.

### **5.2. Minimum Standards in Private Rental Sector from 2018**

The Energy Act 2011 introduced new plans to address energy efficiency of homes in the private rental sector through the setting of minimum standards in England and Wales;

- From 2016 landlords are obliged to permit tenants to undertake energy efficiency improvement works
- From 2018 it should be illegal to rent out a property where the Energy Performance Certificate is rated F or G.

Wide consultation exercises which will establish finer details of the new standards and how the standards will be enforced are expected before adoption.

### **5.3. Decent Homes Standard**

Almost all social housing in the UK has been reported to now meet the Decent Homes Standard. The Decent Homes Standard was introduced in 2001 and required all social housing stock to meet the standard by 2010 by being free of health and safety hazards, being in a reasonable state of repair, having reasonably modern kitchens, bathrooms and boilers and being reasonably insulated.

Arun District Council has had a policy of incorporating energy efficiency measures into maintenance programmes for many years and has made considerable progress towards ensuring that Council owned properties are adequately insulated and equipped with controllable, energy efficient heating systems. Arun District Council's housing stock of approximately 3500 properties has an average SAP rating of 69 and most properties meet the decent homes standard. However some of the harder to treat Arun owned properties would benefit from further increased insulation as appropriate and practicable opportunities arise.

Some external bodies have raised concerns that the specification for minimum insulation and controllable central heating within the Decent Homes Standard is inadequate. Previous plans to introduce a further Warm Home Standard, which would have addressed this and required all social housing to be improved to a minimum energy standard of SAP 70 by 2020 are no longer going ahead, but this target may still be a useful goal to aim for, for Arun's Housing stock.

In addition to plans to improve the efficiency of any council properties which still need improving, efforts will continue to provide information and advice to tenants on non-structural elements of energy efficiency and fuel poverty, such as use of heating controls and electrical appliances.

Further information on Council's ambitions for improving the condition of the local housing stock and the standards expected when building new affordable houses are laid out in the Council's Housing Strategy "Raise the Roof" 2010-15. The Housing Strategy and relevant action plan can be downloaded from the Council's website [www.arun.gov.uk/housing](http://www.arun.gov.uk/housing).

### **5.4. Arun & Chichester Landlord Accreditation Scheme**

Since 2007, Arun District Council have worked in partnership with Chichester District Council, the University of Chichester and Chichester College to run a district wide Landlord Accreditation Scheme.

The scheme is free of charge and when a landlord applies to the Council the premises will be inspected by an officer from the Private Sector Housing Team. The property will be assessed against a number of criteria including energy efficiency, as well as ensuring any accredited property is free of hazards under the HHSRS.

## **6. Energy & Arun District Council's Corporate Estate**

In recent years, the Council have installed many energy efficiency improvements to the Council's buildings including the installation of 49.9kWp of solar PV panels on the Arun Civic Centre in March 2012. While the majority of this strategy is focussed on energy in homes in the District, this section briefly outlines some of the efforts and energy saving actions being taken within the Council's own estate.

### **6.1.Asset Management**

The management of Arun District Council's buildings and wider estate is covered in the Arun District Asset Management Strategy 2009-2014. Section 5 of the strategy on Environmental Considerations states that in managing its existing property assets, Arun District Council aims to:

- 'Encourage sustainable practice amongst its suppliers, such as use of renewable resources'...and Eco-friendly 'transport' (Procurement Strategy);
- Procure certified energy saving electrical goods;
- Make improvements to council buildings to attain BREEAM 'Very Good' or 'Excellent' standard ratings;
- Procure local items and items made from renewable resources where possible;
- Buy energy produced from renewable resources, where appropriate;
- Monitor the energy usage of departments within Arun District Council and take note of advice received from the Council's Carbon Management Action Group;
- Seek to generate power from renewable/low carbon sources where possible.

### **6.2.Carbon Management Action Group (CMAG)**

The Arun District Council Carbon Action Management Group is a group of Officers and managers in the Council who meet quarterly to encourage sustainability improvements within the Council. A working action plan for the carbon management of the Council's property assets, buildings and services can be found on the Council's website using the shortcut [www.arun.gov.uk/energy](http://www.arun.gov.uk/energy).

Some of the actions include:

- Buying energy from renewable resources,
- Implementation of the Council's Procurement Strategy
- Raising the environmental performance of Council office buildings,
- Improving sustainability of other Council-owned buildings, in accordance with other strategies in place.
- Improving energy efficiency through facilities management

### **6.3.Energy Efficiency in Council Offices**

With regards to ICT equipment, the Council have had power management software installed which automatically switches computers into a very low energy hibernation mode when not in use, saving unnecessarily wasted energy.

Energy efficiency in facilities management is generally covered by the Council's Carbon Management Action Group. Historically these actions have also been

supported by staff in Unison's Sustainable Working And You (SWAY) group, however this group was ceased in 2012 with a view to a more corporate approach to green office management. Green office activities within the Council's offices are now supported by the staff group Ignite and focus mainly on low carbon activities that can also provide financial and efficiency savings to the Council. Information will continue to be provided to staff through the Council's intranet, staff induction, staff meetings and the publicity boards located throughout the Council offices.

## **7. Local Energy and Fuel Poverty Projects & Partnerships**

Research has shown that significant improvements in energy efficiency are brought about by working in partnership and much emphasis is placed on this approach by various organisations. Partnerships can take on either a formal or informal arrangement but experience indicates that a formal partnership provides greater benefits to all parties than an informal arrangement. A formal partnership provides an opportunity to ensure projects are delivered and data is collected in a form that is appropriate to each partner organisation. Arun District Council is committed to developing and continuing such partnerships.

### **7.1. Wellbeing and Public Health**

There is a strong body of evidence that the fuel poverty agenda is essential in reducing the impact of pressures on the health of people and their homes. In 2010 the Government announced a radical programme of reform to the NHS. Primary Care Trusts have been abolished and West Sussex Public Health has moved to the upper tier Local Authority and the commissioning function being transferred to GP consortia. There is a statutory Health and Wellbeing Board for West Sussex, and the West Sussex Public Health department have commissioned each District and Borough Council to provide a Wellbeing Hub.

The Arun Wellbeing hubs was one of the first to be set up in 2011 and provides information, signposting and referral to a range of services and motivational support to individuals to assist in the prevention of cardiovascular disease, as well as additional funding to commission a number of wraparound services including tackling fuel poverty. In 2012, the “Wellbeing Home” project was set-up as a shared Wellbeing service for residents in Arun and Chichester Districts, offering home energy visits for fuel poor residents including the installation of physical energy saving measures but also focussing on behavioural change and helping people stay healthy in their own homes.

Public health and local authorities together now have central roles to play in reducing fuel poverty and excess winter deaths, especially as local and upper tier authorities take greater responsibility in the delivery of local health services.

### **7.2. West Sussex Fuel Poverty Co-ordinator**

In 2007 a county-wide Fuel Poverty Coordinator post was created using external funding to help alleviate fuel poverty in the Districts and Boroughs. The original main objective of the post was to increase the SAP ratings homes for people over 65 but during 2010 the post was expanded to cover all households in fuel poverty rather than focussing on older people. The full-time Fuel Poverty Coordinator works closely with all the District and Borough Council's in West Sussex to ensure that fuel poverty is targeted through a partnership approach where appropriate and local opportunities are embraced and delivered. The post continues to be supported by all the Districts and Boroughs and hosted by Arun District Council.

### **7.3. Think Family**

Children from families with multiple problems often have very poor life chances. These families make disproportionate demands on the time and resource of schools and children's services as well as the police, prisons, probation, job centres, housing, adults' social care and the NHS. "Think Family" is an early Intervention & Family Support Programme has been developed as a partnership approach to taking forward early intervention in a co-ordinated way in order to maximise benefits for children, families and communities across West Sussex. The programme recognises the significant impact fuel poverty can have on vulnerable families and aims to provide the right help families if they are suffering with cold or unaffordable energy bills as part of the programme.

Some of the identified "Think Family" areas in the Arun District have also been identified as areas for ECO CSCO funding so a joined up approach should lead to a greater assistance being available to these families.

### **7.4. Working with West Sussex County Council**

#### **7.4.1. West Sussex Climate Change Board & Action Groups**

The West Sussex Environment and Climate Change Board was established in June 2010 with the aim of bringing together significant organisations from all sectors in the County to concentrate on climate change issues in West Sussex. Its aim is to ensure that shared objectives and priorities, both now and in the future, are fully understood, effectively communicated and embedded in the development and delivery of proposals, strategy and policy across the County.

The Board operates a series of thematic action groups, working with a whole range of partners, including Arun District Council, to identify the priority areas for future action.

#### **7.4.2. Sussex Energy Saving Programme**

In 2011 West Sussex County Council started work to create the Sussex Energy Saving Programme (SESP), a programme to set-up and invest in a Special Purpose Vehicle to act as a Green Deal and ECO Provider across West Sussex and the wider Sussex area. Having secured the services of Carillion Energy; a private sector Delivery Partner through OJEU procurement during 2013, the County, Districts, Boroughs and local organisations plan to work on a long-term partnership to deliver large-scale eco-refurbishment in a socially responsible manner. This will include renewable energy, heat and non-domestic energy schemes financed through all available means including, but not limited to, the Green Deal.

Arun District Councillors made a decision in early 2013 to be an affiliate partner to the SESP scheme, contributing some resources and data, but do not intend to become a financial "investor" in the programme at this stage.



## **7.5. Other Local Authorities and Partner organisations**

### **7.5.1. West Sussex South East & UK Carbon Action Networks**

Following the introduction of the Home Energy Conservation Act (HECA) in 1995, a cluster of energy officers developed a network at both regional and national scales to help exchange information and ideas, stimulate funding opportunities, work across boundaries and disseminate information. The Carbon Action Network (CAN) was created out of the HECA network in view of the Government's proposals in late 2007 to repeal HECA and address the expanding role of the local authority energy officer with regards to tackling climate change and fuel poverty.

CAN has a broader remit than HECA, also covering the wider domestic carbon footprint, with the option to embrace climate change mitigation and to an extent climate change adaptation as well as fuel poverty issues. The network provides representation and support for local authority climate change and fuel poverty officers, sharing information and best practice, building partnerships with other sectors, and as a formally constituted, representative and expert body of officers, contributing to consultations on national policy and programme delivery. Further information on the UK and SE CAN network can be found at [www.can.uk.net](http://www.can.uk.net)

Arun District Council is an active member of the West Sussex CAN forum alongside the Districts and Boroughs and the County Council. Arun District Council also provides regular representation for West Sussex at the South East CAN forum (which feeds directly into the UK CAN forum) and has had best practice examples from projects in West Sussex published in the UK CAN magazine.

### **7.5.2. West Sussex Sustainable Business Partnership**

The West Sussex Sustainable Business Partnership (WSSBP) was originally launched in 1998 as part of West Sussex County Council's Economic Development activities. In 2009 the partnership expanded to include a local Sustainable Business Network that now has over 600 members and holds regular events across the region. Partners include the County, District and Borough Councils, Universities and the Environment Agency.

In early 2011 the Sustainable Business Partnership incorporated as a Community Interest Company (CIC). The move from being hosted at West Sussex County Council has allowed the partnership to further develop services and increase the support on offer to the local business community who are increasingly recognising the value of sustainable business practice, investment in resource efficiency to reduce running costs and the importance of playing a responsible role within the local community.

Arun District Council have representation on the WSSBP CIC steering group and continue to encourage environmental sustainable business support to be provided to local businesses in the District whenever possible and practical.

### **7.5.3. Local groups and organisations**

Arun District Council recognises that it would not be possible to tackle fuel poverty and energy efficiency effectively in isolation and it will therefore work in partnership

with both residents and organisations with an interest in the environmental, welfare and housing needs of residents in the district. In particular, the council will work closely with: -

- Citizen's Advice Bureaux– Bognor & Littlehampton (CAB)
- Other CAN Officers in West Sussex via the West Sussex CAN Forum
- Age UK West Sussex
- West Sussex Carers Association
- Local voluntary and community action groups
- West Sussex Occupational Therapists & Social Services
- West Sussex Fire and Rescue Service
- Sussex Police
- West Sussex Libraries
- Job Centre Plus (Bognor & Littlehampton Offices)
- Arun Lifeline
- Royal Voluntary Service

## **8. Strategy & Action Plan Review**

This strategy sets out Arun District Council's intentions with regards to Energy Efficiency in the District and also internally in the Council for the period 2014 to 2019.

Every October the Action Plan (appendix 1) will be reviewed and updated against previously set targets and a revised action plan produced for the next year. The revised action plans will be signed off by Arun District Council's Individual Cabinet Member (ICM) for Housing by December of each year.

The entire strategy will be reviewed in detail in 2019 with a view to creating a new strategy, to start from 2020.

## Appendix 1: Annual Energy & Fuel Poverty Action Plan for 2014

| Main Aim  | Actions   | Reporting Officer(s)          | Timescales   |
|---|---|-------------------------------|--|
| <b>Fuel Poverty Actions</b>   |   |                               |  |
| <b>To work towards reducing number of people living in fuel poverty in the District using both practical and behavioural measures</b> | Promote, support and encourage the use of the services of Home Energy Visitor (HEV) as part of the Arun and Chichester Wellbeing Home scheme  | Hazel Flack, Jo Allatt        | Post currently funded until March 2014             |
|   | Promote and maximise the number of residents with access to funding using funds from the home heat reduction obligation (HHCRO)   | Jo Allatt                     | On-going   |
|   | Work with the West Sussex Fuel Poverty Co-ordinator to deliver fuel poverty actions in Arun District  | Michelle Cheeseman, Jo Allatt | Post currently funded until March 2015             |
|   | Work with the Family Intervention Project team and "Think Family" to encourage energy efficiency measures as part of the intervention solutions.  | Roger Wood, Jo Allatt         | On-going   |
|   | Train staff in Housing Options team on opportunities for energy efficiency to help ensure tenants have both affordable rent and affordable energy bills when encouraged into private rental properties. | Judy Knapp, Jo Allatt         | On-going   |
|   | Promote and encourage ECO and Green Deal to private sector landlords including HMO licensees through regular updates at the Arun Landlord's forum.  | Louise Crane                  | Updates at Arun landlord forums; March, July & Nov |
| <b>To target areas known to contain Hard To Treat (HTT) homes</b>   | Promote ECO and Green Deal to able-to-pay household in and at risk of fuel poverty due to the nature of their property rather than low income.  | Jo Allatt                     | On-going   |
|   | See actions under "energy efficiency action" below  | n/a                           | n/a  |
| <b>To further improve the energy efficiency of the</b>  | Enable and encourage the insulation of leasehold blocks of flats and part-owned properties where the Council holds the freehold.  | Michelle Brand, Jo Allatt     | On-going   |

|  |  |  |   |
|--|--|--|---|
| <b>Council's own buildings</b>   | Create a set of minimum energy standards for newly purchased properties before first let out to help protect residents from fuel poverty.  | Mark Coates, Steve Beer                    | By September 2014   |
|  | Survey void properties for energy improvements and include any works required in the Planned Maintenance schedule of works.  | Steve Beer                                 | On-going  |
|  | Apply minimum energy efficiency standards for new-build council housing (within options for Code for Sustainable Homes to ensure tenants protected from fuel poverty as much as possible).   | Mark Coates                                | By September 2014   |
|  | Digitalise and collate all existing EPC data and other already known data to establish baseline for Arun Housing stock & opportunities for energy improvements   | David Butterworth, Steve Beer              | All existing data by September 2014, then on-going further data collection and collation. |
|  | Collect information from Arun tenants who are cold or have thermal complaints and add to the Planned Maintenance schedule of works   | Steve Beer                                 | On-going  |
|  | Share known data on Housing stock with WSCC with a view to investigate future energy projects through Sussex Energy Saving Programme.  | Steve Beer, Jo Allatt                      | by March 2014   |
|  | Design, print and distribute an energy efficiency and fuel poverty advice pack tailored for Arun tenants for use in Housing welcome/tenant packs. Include best practice guides for operating heating systems, energy efficiency advice and encouraging positive behaviour change to reduce fuel poverty. | Steve Beer, Peter Stott & Jo Allatt        | By September 2014   |
| <b>To work towards the Council's wider priorities of providing help to those in need</b> | Arrange/Attend outreach events in both rural and urban communities to educate, inform, promote and take referrals for appropriate energy efficiency and/or fuel poverty assistance   | Jo Allatt, Hazel Flack, Michelle Cheeseman | On-going  |
|  | Provision of up-to-date information on help for people in fuel poverty - on Council webpages and information boards in the Wellbeing Annexe and Arun Civic Centre  | Jo Allatt                                  | Revise at least twice a year, approx. April & October                                     |

|  |   |                               |  |
|--|---|-------------------------------|--|
|  | Provision of training for Council Officers & relevant frontline staff in partner organisations on the fuel poverty assistance available in the local area   | Jo Allatt, Michelle Cheeseman | On-going   |
|  | Provision of training for Elected Members to identify residents suffering from fuel poverty and what fuel poverty assistance is available in the local area   | Jo Allatt, Michelle Cheeseman | At least one session/ information document to be completed by April 2014 |
|  | Support and refer eligible residents to the West Sussex Emergency Heater scheme.  | Michelle Cheeseman            | On-going   |
| <b>Energy Efficiency (Carbon Reduction) Actions</b>  |   |                               |  |
| <b>To contribute towards reducing Greenhouse gas emissions in buildings by at least 20% of 2010 levels by 2027 as part of the UK carbon plan</b> | Promote and provide information on range of low energy lighting available including new LED options   | Jo Allatt                     | On-going   |
|  | Provide information on climate change predictions for the Arun District and carbon reduction activities and how residents can contribute to reducing emissions and make a difference through their own actions. | Jo Allatt                     | On-going   |
|  | Provide support to community energy projects which encourage the uptake of carbon reduction measures and activities   | Jo Allatt                     | On-going   |
| <b>To encourage and support the insulation of any remaining cavities and lofts in the District.</b>  | Provide information on the benefits of home insulation and signpost residents to appropriate options for installing measures, including advice on any financial assistance available                            | Jo Allatt, Hazel Flack        | On-going   |
|  | Investigate opportunities for assisting with loft clearances to enable greater uptake of loft insulation  | Jo Allatt, Michelle Cheeseman | By end of 2014   |
|  | Promote opportunities to residents where additional funding for insulating hard to treat cavities is available, especially 3+storey blocks of flats   | Jo Allatt                     | By September 2014  |
| <b>To encourage and support the uptake</b>   | Promote and encourage uptake of Green Deal and ECO as a mechanism to help fund solid wall insulation  | Jo Allatt                     | On-going   |

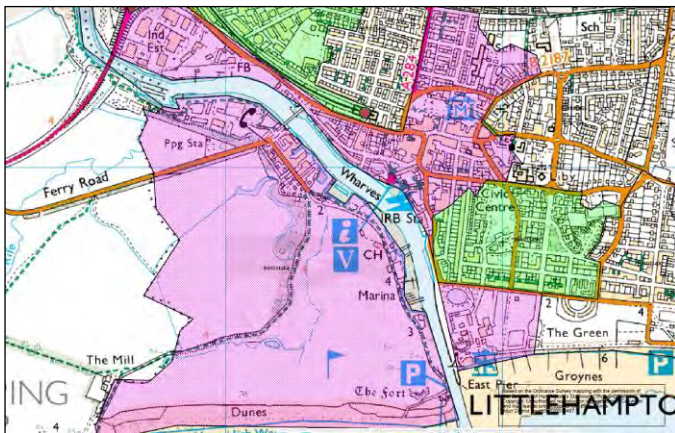


|  |  |                         |  |
|--|--|-------------------------|--|
| <b>of solid wall insulation in the District</b>  | Create and promote local case studies of successful solid wall insulation installations to inspire and motivate residents                                    | Jo Allatt               | By September 2014  |
| <b>To further improve the energy efficiency of the Council's own buildings</b>   | Work with other departments to deliver actions in the Arun Carbon Management Action Group Action Plan.   | Roger Wood              | On-going – CMAG meetings 3 times a year.   |
|  | Encourage and support energy efficiency activities and the installation of carbon saving measures in the Council's leisure facilities.                       | Robin Wickham           | On-going in current facilities, also for discussion when new leisure contract negotiations commence. |
|  | Carry out feasibility studies for renewable energy systems on Council-owned properties and install where most appropriate.                                   | Peter Stott             | By September 2014  |
|  | Research and implement cost effective measures that could be applied in the Council offices that will improve energy efficiency and reduce carbon emissions. | Kim Breden, Paul Broggi | On-going   |
| <b>To target areas known to contain Hard To Treat (HTT) homes</b>  | Identify different types of HTT homes, their locations in the District, the various solutions available and highlight any associated risks                   | Jo Allatt               | On-going   |
|  | Promote Green Deal, ECO and Energy Plan finance to areas known to contain HTT homes and able-to-pay customers  | Jo Allatt               | On-going   |
|  | Create case studies of best practice examples to inspire other residents to take up energy saving measures   | Jo Allatt               | By September 2014  |
| <b>To encourage and support the uptake of domestic renewable energy systems for both heat and electricity generation</b> | Educate residents on and promote the Feed in Tariff (FiT) and Renewable Heat Incentive (RHI) to encourage residents to install domestic renewable systems    | Jo Allatt               | On-going   |
|  | Investigate suitable opportunities in the District for solar power and heating and target areas as appropriate to encourage uptake                           | Jo Allatt               | On-going   |
|  | Encourage the use of renewable energy systems such as solar thermal to heat domestic swimming pools in the District  | Jo Allatt               | On-going   |
|  | Encourage the use of renewable energy systems for domestic power, heating and hot water in communities that are not connected to mains gas                   | Jo Allatt               | On-going   |
|  | Encourage and support community renewable energy projects in the District and greater uptake of renewable energy in community buildings                      | Jo Allatt, Karl Roberts | On-going   |

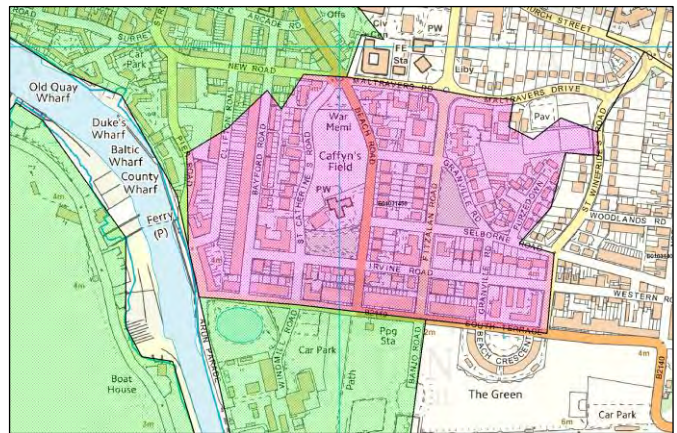
|  |   |                             |   |
|--|---|-----------------------------|---|
|  | Create case studies of best practice examples to inspire other residents to take up renewable energy systems                                    | Jo Allatt                   | By September 2014                             |
| <b>Planning - Retrofitting existing homes and developing new homes and communities</b>   |   |                             |   |
| <b>To contribute towards reducing Greenhouse gas emissions in buildings by at least 20% of 2010 levels by 2027 as part of the UK carbon plan</b> | Create and provide guidance for residents on renewable energy systems with regards to planning permission and permitted development rights      | Jo Allatt, Nikolas Antoniou | By September 2014                             |
|  | Encourage the installation of energy efficient improvements through policies in the Arun Local Plan   | Simon Meecham               | Local Plan expected to be adopted during 2014 |
|  | Train staff in Development Control on planning policy changes for solid wall and renewable energy   | Jo Allatt, Nikolas Antoniou | By September 2014                             |
| <b>To encourage and support the uptake of solid wall insulation in the District</b>  | Create and provide guidance for residents on solid wall insulation systems with regards to planning permission and permitted development rights | Jo Allatt, Nikolas Antoniou | By September 2014                             |
|  | Work with the Conservation Officer to find appropriate solid wall solutions for Heritage Assets   | Jo Allatt, Martyn White     | On-going                                      |



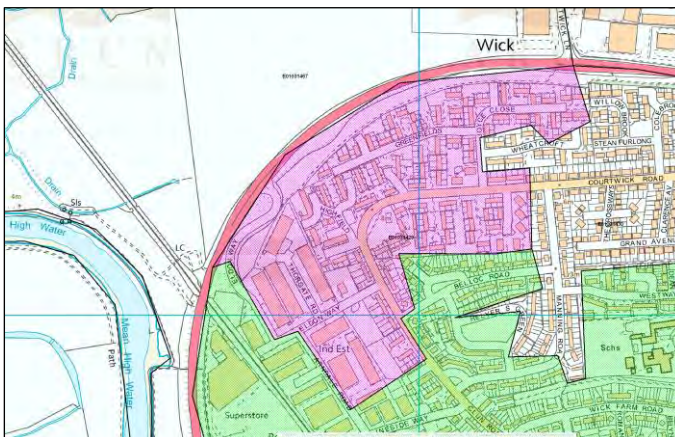
## Appendix 2A: CSCO areas in Littlehampton, Arun District



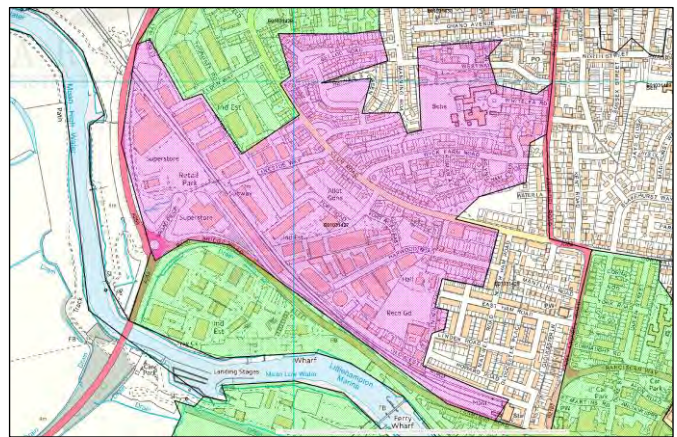
A



B

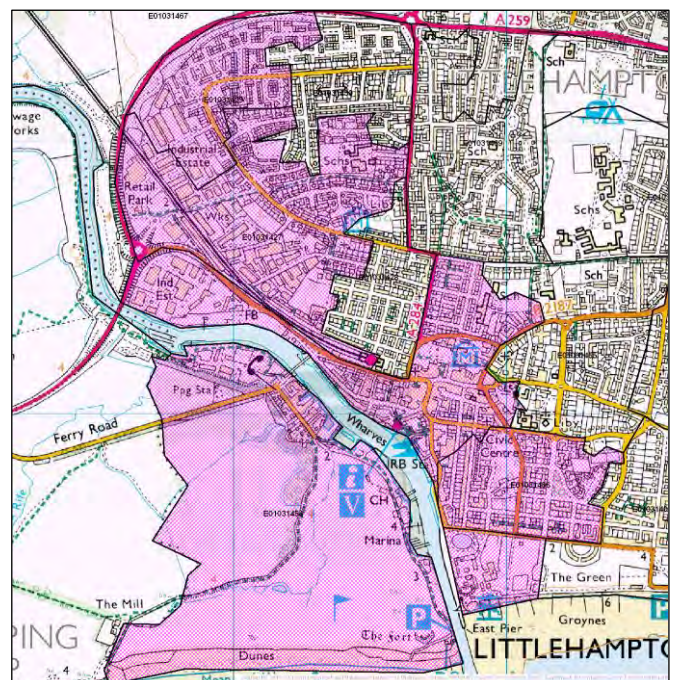


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D

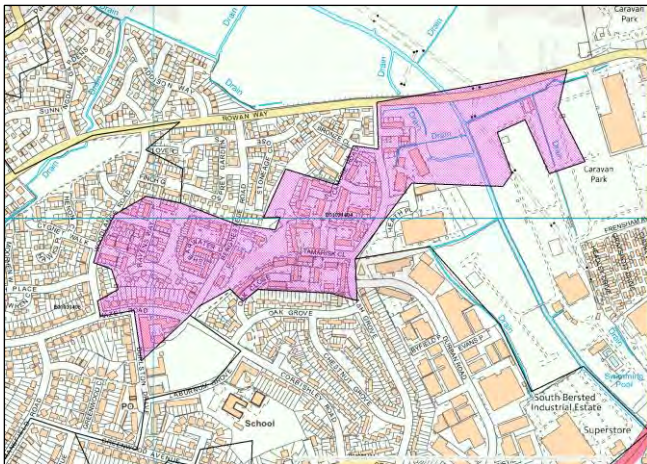
- A. **E01031454, River (west):** rope walk & fields
- B. **E01031456, River (east):** Clifton Road, Bayford Rd, Beach rd (up to civic centre), Fitzalan rd (south of Maltravers), Granville rd, Irvine rd, Western rd and S. Terrace (to St Winefride's Rd).
- C. **E01031429, Ham (North):** previous "CESP" area (some of Clun Road, Heo Green, Highfield flats, Greenfields, Potters Mead, White Acre and some of Courtwick rd).
- D. **E01031427, Ham (South):** Clun Rd, Belloc Rd, Wick Farm Rd, some of Westway, some of Manning Rd., Harwood Rd.



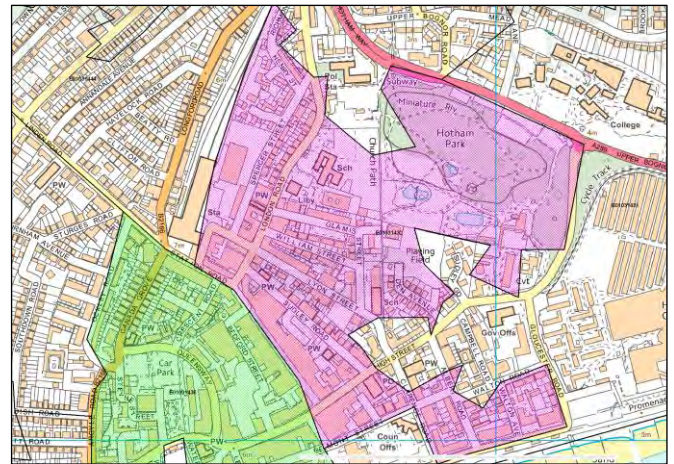
Littlehampton areas overview map  
Carbon Saving Community Obligation( CSCO)



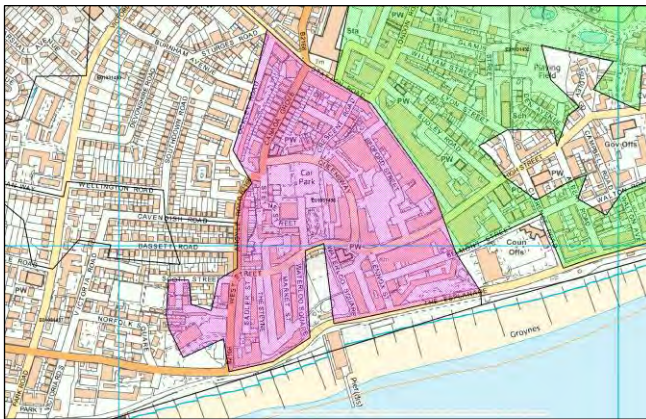
## Appendix 2B: CSCO areas in Bognor Regis, Arun District



A

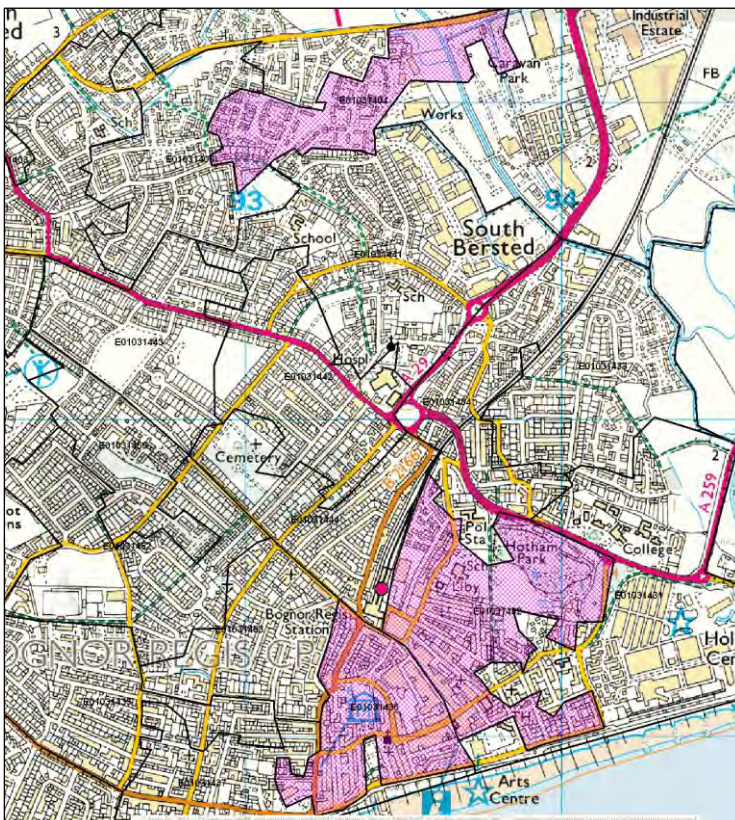


B



C

- A. **E01031404, Bersted (North):** Some of Berghestede Road, Ash Grove, Tamarisk Close, Sycamore Road, Maple Gardens, Ravens Way, some of Hazel Road.
- B. **E01031432, Hotham:** Hotham Park, Glamis street, William Street, London Road, Spencer Street, Lyon Street, Henry Street, Sudley Road.
- C. **E01031436, Marine:** Canada Grove, Ockley Road, Crescent Road, Queensway, Bedford Street, Steyne Steet, West Street, The Steyne, Waterloo square, Lennox Street, Sadler Street, Market Street (but not The Esplanade).



Bognor areas overview map  
Carbon Saving Community Obligation( CSCO)



## Appendix 3: overview of progress and achievements for Arun DC

### A3.1 Past Grants & Projects Delivered in the Arun District

#### A3.1.1 Local Warm Front Grants

| Year    | Cavity Wall Insulation | Loft Insulation | Central Heating | Total No of Households assisted<br>(incl. measures not in table) | Total No of Council Top-up Grants (G) or Loans (L) |
|---------|------------------------|-----------------|-----------------|--|--|
| 2001/02 | 450                    | 380             | 102             | 849  | -  |
| 2002/03 | 396                    | 396             | 169             | 957  | -  |
| 2003/04 | 455                    | 444             | 203             | 1006   | -  |
| 2004/05 | 316                    | 342             | 129             | 677  | -  |
| 2005/06 | 184                    | 193             | 311             | 631  | -  |
| 2006/07 | 155                    | 219             | 240             | 827  | 22 (G)   |
| 2007/08 | 193                    | 230             | 236             | 913  | 10 (G)<br>15 (L)                                   |
| 2008/09 | 168                    | 213             | 322             | 895  | 80 (G)   |
| 2009/10 | 122                    | 186             | 272             | 642  | 27 (G)   |
| 2010/11 | 39                     | 46              | 301             | 674  | 44 (G)   |
| 2011/12 | 6                      | 3               | 133             | 173  | 0 (no appl.)                                       |
| 2012/13 | 3                      | 3               | 91              | 108  | 1 (L)  |

Table A3.1.1 Warm Front Grants delivered in Arun 2001-2013

#### A3.1.2 Local Home Insulation Schemes (EEC/CERT funded)

| Year    | No of Properties Improved | Loft Insulation | Cavity Wall Insulation | Both |
|---------|---------------------------|-----------------|------------------------|------|
| 2002/03 | 37                        | 13              | 10                     | 14   |
| 2003/04 | 124                       | 25              | 30                     | 69   |
| 2004/05 | 77                        | 12              | 27                     | 38   |
| 2005/06 | 179                       | 33              | 52                     | 94   |
| 2006/07 | 469                       | 122             | 347                    | 95   |
| 2007/08 | 597                       | 351             | 395                    | 149  |
| 2008/09 | 1338                      | 641             | 945                    | 248  |
| 2009/10 | 717                       | 225             | 496                    | 185  |
| 2010/11 | 976                       | 252             | 477                    | 176  |
| 2011/12 | 965                       | 281             | 460                    | 224  |

Table A3.1.2 Home insulation delivered in Arun using Council endorsed schemes 2002-2012

#### A3.1.3 Community Energy Saving Programme (CESP)

In 2009 the Department for Energy and Climate Change (DECC) launched the Community Energy Saving Programme CESP. In the Arun District, a community of approx. 520 households in Ham ward (Littlehampton) met the criteria; this was the only eligible area in West Sussex. The mixed tenure area of houses and flats consists of predominantly of non-standard construction; they are mostly terraces of timber-frame stud wall properties with

hung tiles/PVC cladding on both the front and rear facades. There are also several 2-3 storey blocks of flats in the area, of which the Council owns the freehold. The solution to improving the energy efficiency of most of these properties was considered to be external wall insulation.

Using CESP funds from EDF Energy, works started in December 2011 with a view to completion by December 2012. Approximately 60% of properties in the CESP area took up energy saving measures, including external wall insulation, loft insulation and heating.

#### **A3.1.4 Arun Renewable Energy Advice Service**

The Arun Renewable Energy Advice Service was set up and launched in July 2009 using a prize fund won by the Council in 2008 from the Ashden Awards for Sustainable Energy.

The service was run as a predominately online service by consultants following a tender exercise. The service was designed to help empower, encourage and impartially guide residents who are confused or unsure about investing in renewable energy systems, whilst also promoting local installers and the Government's Low Carbon Building Programme (LCBP) grants and taking into account local knowledge including coastal microclimates.

Over 3 years, 50 households submitted a survey form and received a tailored renewable energy report. Although in addition a number of residents were offered up to 30 minutes of telephone advice with an energy consultant. The project also raised awareness of the scope for renewable energy systems in the Arun District amongst council staff, councillors and the public.

#### **A3.1.5 Arun Renewable Energy Interest-free Loan Scheme (Pilot)**

Interest free loan up to a maximum of £4,000 to assist with renewable technology measures. Loan taken out over 1, 2 or 3 years and repaid on a monthly basis. This was piloted during 2010-2011 in Arun District alongside the existing Arun Renewable Energy Advice Service. Due to the success of the scheme, the Council matched the RHB funds for the loan scheme to extend it further.

| <b>Type of renewable energy system installed</b> | <b>Number of properties offered loans</b> | <b>Total amount offered as interest-free loan</b> |
|--|---|---|
| Solar Thermal                                    | 1   | £4,000  |
| Solar Photovoltaics (PV)                         | 9   | £36,000   |
| Biomass  | 2   | £5,212  |
| Ground Source Heat Pump                          | 1   | £4000   |
| <b>Total</b>                                     | <b>13</b>                                 | <b>£49,212</b>                                    |

**Table A3.1.5** Arun Renewable Energy Interest-free Loan Scheme 2010-2011

### **A3.2 West Sussex-wide Partnership Projects**

#### **A3.2.1 West Sussex Flats Insulation Project**

**Aim:** To provide cavity wall and loft insulation in licensed HMOs and/or blocks of flats, where due to the different ownership and occupancy arrangements it may be difficult to promote and organise these works. The project was led by Arun District Council.



| Local Authority | 2009-2010              |   | 2010-2011              |   | 2011-12                |   |
|-----------------|------------------------|---|------------------------|---|------------------------|---|
|                 | No of blocks completed | No. of dwellings (flats or bedsits) completed | No of blocks completed | No. of dwellings (flats or bedsits) completed | No of blocks completed | No. of dwellings (flats or bedsits) completed |
| Adur            | 3                      | 24  | 1                      | 3   | 1                      | 20  |
| Arun            | 12                     | 130   | 7                      | 87  | 2                      | 55  |
| Crawley         | 3                      | 24  | 3                      | 50  | 0                      | 0   |
| Horsham         | 10                     | 115   | 6                      | 171   | 1                      | 71  |
| Mid Sussex      | 0                      | 0   | 0                      | 0   | 0                      | 0   |
| Worthing        | 3                      | 22  | 13                     | 107   | 2                      | 12  |
| <b>TOTAL</b>    | <b>31</b>              | <b>315</b>                                    | <b>30</b>              | <b>418</b>                                    | <b>6</b>               | <b>158</b>                                    |

**Table A3.2.1** West Sussex Flats Insulation Project – Achievements 2009-2012

### A3.2.2 West Sussex Warm Homes Project

Aim: To provide cavity wall and loft insulation in certain owner occupied and rented accommodation where vulnerable residents do not fall within the criteria of Warm Front.

| Local Authority | No. Properties (Loft and/or cavity wall) |
|-----------------|--|
| Adur            | 206                                      |
| Arun            | 251                                      |
| Crawley         | 80                                       |
| Horsham         | 233                                      |
| Mid-Sussex      | 53                                       |
| Worthing        | 97                                       |
| <b>TOTAL</b>    | <b>920</b>                               |

**Table A3.2.2** West Sussex Partnership Warm Homes Insulation Grants 2010-11

### A3.2.3 West Sussex Emergency Heating Scheme

Aim: To supply portable heaters to residents who have applied for Warm Front, have no heating and are awaiting the works to be installed under the grant. The scheme is co-ordinated by the West Sussex Fuel Poverty Co-ordinator

|              | No. of properties who received heaters (1 heater per household) |           |           |           |
|--------------|---|-----------|-----------|-----------|
|              | 2010 (from Jan)   | 2010-11   | 2011-12   | 2012-13   |
| Adur         | 6   | 3         | 0         | 4         |
| Arun         | 1   | 8         | 8         | 14        |
| Crawley      | 3   | 8         | 10        | 3         |
| Horsham      | 1   | 3         | 5         | 3         |
| Mid-Sussex   | 1   | 1         | 0         | 3         |
| Worthing     | 5   | 6         | 11        | 3         |
| Chichester   | 3   | 3         | 0         | 10        |
| <b>TOTAL</b> | <b>20</b>   | <b>32</b> | <b>34</b> | <b>40</b> |

**Table A3.2.3** Emergency Heating Scheme – Achievements 2009-2013

### A3.2.4 Warm Homes Healthy People Fund (Department of Health)

Aim: Partnership working using Department of Health (WHHP) grant fund to deliver a multi-agency programme of winter warmth assistance over winter 2011/12 and again in 2012/13.

The 2011/12 programme was referred to as 'Warmer West Sussex' and was co-ordinated by the West Sussex Fuel Poverty Co-ordinator.

|                            | <b>Warmer West Sussex (No. of properties)</b> |                       |                       |   |
|----------------------------|---|-----------------------|-----------------------|---|
|                            | <b>Home Energy visits</b>                     | <b>Benefit checks</b> | <b>Red Cross pack</b> | <b>Home fire safety check referrals</b> |
| <b>Adur &amp; Worthing</b> | 556   | 78                    | 18                    | 132                                     |
| <b>Arun</b>                | 547   | 102                   | 104                   | 106                                     |
| <b>Crawley</b>             | 372   | 115                   | 10                    | 86                                      |
| <b>Chichester</b>          | 372   | 93                    | 36                    | 135                                     |
| <b>Horsham</b>             | 372   | 97                    | 42                    | 92                                      |
| <b>Mid-Sussex</b>          | 372   | 113                   | 20                    | 87                                      |
| <b>TOTAL</b>               | <b>2591</b>                                   | <b>598</b>            | <b>230</b>            | <b>638</b>                              |

Table A3.2.4 Warmer West Sussex Project, Jan–April 2012

The 2012/2013 programme included all the Districts and Boroughs in West Sussex, West Sussex County Council, Age UK, Albion in the Community, Guild Care, Mears Home Improvement Agency, Citizens Advice Bureaux. A full report on the project can be downloaded from [www.westsussexenergy.co.uk](http://www.westsussexenergy.co.uk).

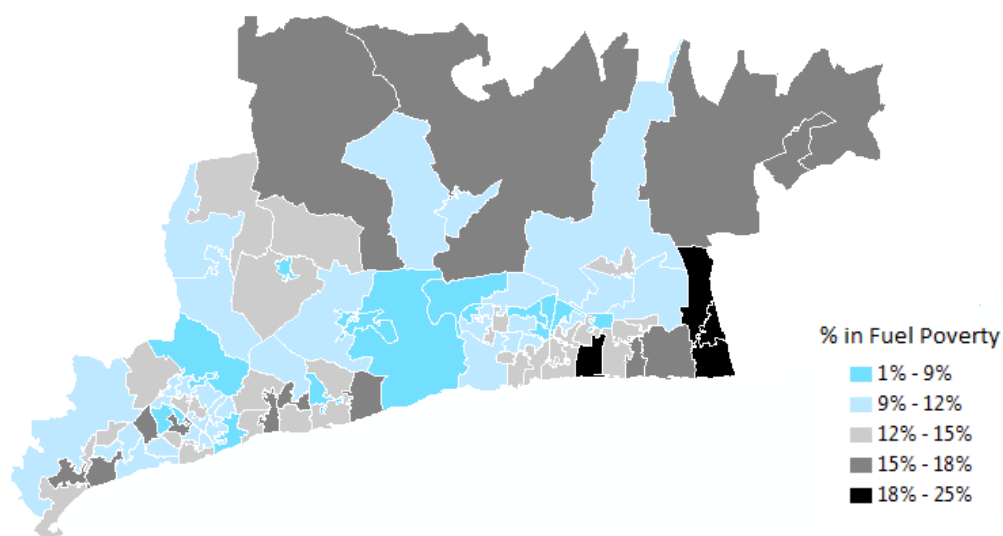
|                            | <b>Warm Homes Healthy People (No. of properties)</b> |                       |                                  |
|----------------------------|--|-----------------------|----------------------------------|
|                            | <b>Home Energy visits</b>                            | <b>Heating Grants</b> | <b>'Surviving Winter' grants</b> |
| <b>Adur &amp; Worthing</b> | 155  | 2                     | 45                               |
| <b>Arun</b>                | 158  | 16                    | 111                              |
| <b>Crawley</b>             | 27   | 3                     | 53                               |
| <b>Chichester</b>          | 119  | 2                     | 20                               |
| <b>Horsham</b>             | 4  | 2                     | 52                               |
| <b>Mid-Sussex</b>          | 32   | 4                     | 15                               |
| <b>TOTAL</b>               | <b>495</b>   | <b>29</b>             | <b>296</b>                       |

Table A3.2.5 West Sussex Warm Homes Healthy People Project, Dec 2012–April 2013

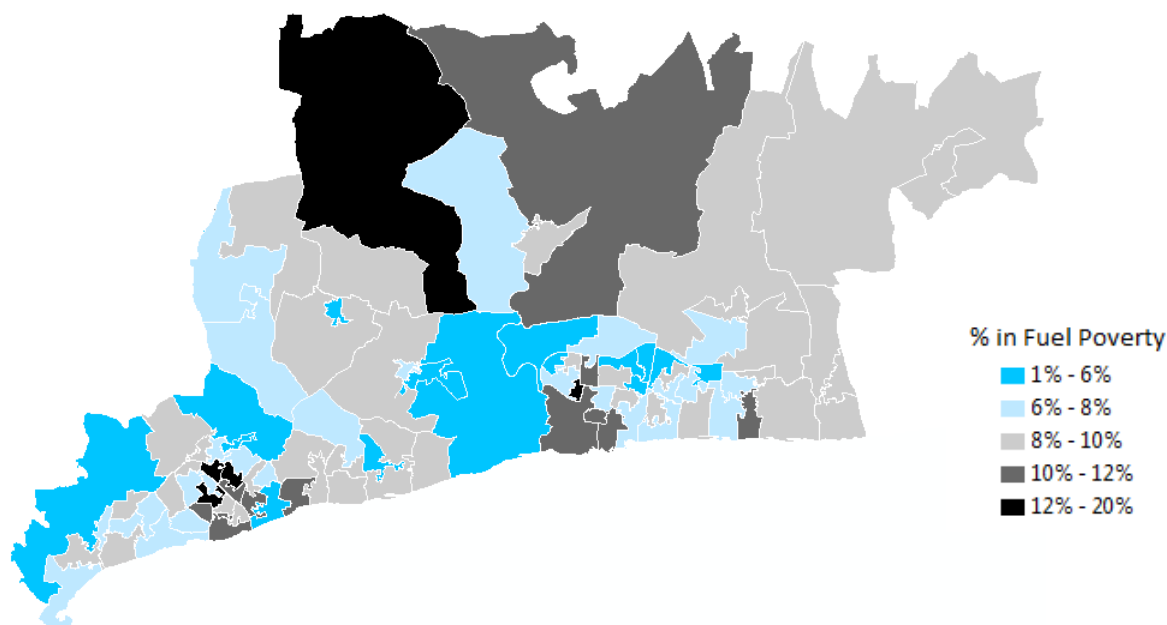
## Appendix 4: Arun District - Fuel Poverty Maps

The maps below allow the comparison of fuel poverty across the Arun District using both fuel poverty definitions. Map A is calculated using the 10% fuel poverty measure, map B is calculated using the Low Income High Cost (LIHC) fuel poverty measure. The maps show the percentage distribution of people in fuel poverty 2010/11 at LSOA level (data sourced from the Department of Energy & Climate Change (DECC)). It must however be noted that the scales used for each map are not identical. Further explanation on the use and implications of these definitions can be found in section 3.3 and 4.2 of this strategy.

**Map A**



**Map B**



## Appendix 5: Sub regional fuel poverty statistics for Arun LSOAs

| Arun LSOA Code | Arun Ward Name                       | % Reported in Fuel Poverty (using old 10% definition) |                 | Rank in Arun (using old 10% definition) | % Reported in Fuel Poverty (new LIHC definition) | Rank in Arun (LIHC)         | Difference bet 10% and LIHC definitions (movement in ranking) |
|----------------|--------------------------------------|---|-----------------|---|--|-----------------------------|---|
|                |                                      | 2010 DECC stats                                       | 2011 DECC stats | (1 is highest fuel poverty)             | 2011 LIHC statistics                             | (1 is highest fuel poverty) |   |
| E01031452      | Pevensey (Bognor)                    | 16.5%   | 15.8%           | 13                                      | 14.4%  | 1                           | +12   |
| E01031442      | Orchard (Bognor)                     | 15.0%   | 13.2%           | 32                                      | 14.3%  | 2                           | +30   |
| E01031428      | Ham (Littlehampton)                  | 15.9%   | 13.5%           | 27                                      | 12.9%  | 3                           | +24   |
| E01031465      | Walberton                            | 14.8%   | 16.3%           | 11                                      | 12.5%  | 4                           | +7  |
| E01031443      | Orchard (Bognor)                     | 15.6%   | 12.6%           | 38                                      | 12.0%  | 5                           | +33   |
| E01031392      | Arundel                              | 15.3%   | 15.5%           | 15                                      | 11.8%  | 6                           | +9  |
| E01031444      | Orchard (Bognor)                     | 13.4%   | 11.9%           | 46                                      | 11.8%  | 7                           | +39   |
| E01031435      | Marine (Bognor)                      | 13.8%   | 13.5%           | 28                                      | 11.7%  | 8                           | +20   |
| E01031419      | Felpham West                         | 15.0%   | 14.7%           | 20                                      | 11.5%  | 9                           | +11   |
| E01031437      | Marine (Bognor)                      | 13.3%   | 12.3%           | 42                                      | 11.5%  | 10                          | +32   |
| E01031400      | Beach (Littlehampton)                | 13.2%   | 12.5%           | 40                                      | 11.0%  | 11                          | +29   |
| E01031456      | River (Littlehampton)                | 13.9%   | 12.2%           | 43                                      | 11.0%  | 12                          | +31   |
| E01031432      | Hotham (Bognor)                      | 12.2%   | 11.1%           | 56                                      | 11.0%  | 13                          | +43   |
| E01031454      | River (Littlehampton)                | 13.8%   | 11.2%           | 55                                      | 10.7%  | 14                          | +41   |
| E01031413      | East Preston with Kingston           | 17.0%   | 16.7%           | 8                                       | 10.1%  | 15                          | -7  |
| E01031469      | Wick with Toddington (Littlehampton) | 18.2%   | 14.7%           | 21                                      | 10.0%  | 16                          | +5  |
| E01031420      | Felpham West                         | 15.7%   | 15.8%           | 12                                      | 9.9%   | 17                          | -5  |
| E01031412      | East Preston with Kingston           | 15.2%   | 15.7%           | 14                                      | 9.8%   | 18                          | -4  |
| E01031383      | Aldwick West                         | 14.4%   | 15.0%           | 17                                      | 9.8%   | 19                          | -2  |
| E01031409      | Brookfield (Littlehampton)           | 15.0%   | 10.9%           | 59                                      | 9.8%   | 20                          | +39   |
| E01031423      | Ferring                              | 21.3%   | 19.6%           | 2                                       | 9.7%   | 21                          | -19   |
| E01031422      | Ferring                              | 21.5%   | 21.7%           | 1                                       | 9.6%   | 22                          | -21   |
| E01031391      | Arundel                              | 12.4%   | 11.8%           | 48                                      | 9.6%   | 23                          | +25   |
| E01031401      | Bersted (Bognor)                     | 15.5%   | 12.8%           | 36                                      | 9.5%   | 24                          | +12   |
| E01031458      | Rustington East                      | 18.6%   | 18.5%           | 4                                       | 9.4%   | 25                          | -21   |
| E01031418      | Felpham East                         | 16.9%   | 16.4%           | 10                                      | 9.4%   | 26                          | -16   |
| E01031397      | Barnham                              | 15.1%   | 14.7%           | 19                                      | 9.4%   | 27                          | -8  |
| E01031416      | Felpham East                         | 12.6%   | 13.2%           | 31                                      | 9.4%   | 28                          | +3  |
| E01031447      | Pagham and Rose Green                | 19.9%   | 17.3%           | 5                                       | 9.1%   | 29                          | -24   |
| E01031466      | Walberton                            | 12.7%   | 13.3%           | 30                                      | 9.0%   | 30                          | 0   |
| E01031425      | Findon                               | 16.7%   | 16.6%           | 9                                       | 8.9%   | 31                          | -22   |
| E01031426      | Findon                               | 16.1%   | 15.1%           | 16                                      | 8.9%   | 32                          | -16   |
| E01031406      | Bersted (Bognor)                     | 11.9%   | 10.1%           | 71                                      | 8.9%   | 33                          | 38  |
| E01031421      | Felpham West                         | 15.0%   | 13.9%           | 26                                      | 8.8%   | 34                          | -8  |
| E01031424      | Ferring                              | 19.4%   | 19.4%           | 3                                       | 8.7%   | 35                          | -32   |
| E01031440      | Middleton-on-Sea                     | 18.8%   | 17.2%           | 6                                       | 8.7%   | 36                          | -30   |
| E01031462      | Rustington West                      | 11.9%   | 10.0%           | 74                                      | 8.7%   | 37                          | +37   |
| E01031461      | Rustington West                      | 15.5%   | 14.3%           | 22                                      | 8.6%   | 38                          | -16   |
| E01031403      | Bersted (Bognor)                     | 14.4%   | 11.7%           | 49                                      | 8.5%   | 39                          | +10   |
| E01031472      | Yapton                               | 12.5%   | 11.0%           | 57                                      | 8.5%   | 40                          | +17   |
| E01031386      | Angmering                            | 13.3%   | 10.8%           | 60                                      | 8.4%   | 41                          | +19   |
| E01031388      | Angmering                            | 12.1%   | 10.5%           | 66                                      | 8.4%   | 42                          | +24   |
| E01031436      | Marine (Bognor)                      | 11.7%   | 9.4%            | 75                                      | 8.4%   | 43                          | +32   |
| E01031453      | Pevensey (Bognor)                    | 11.2%   | 10.4%           | 68                                      | 8.3%   | 44                          | +24   |

|           |                                      |       |       |    |      |    |     |
|-----------|--------------------------------------|-------|-------|----|------|----|-----|
| E01031393 | Barnham                              | 14.6% | 13.4% | 29 | 8.2% | 45 | -16 |
| E01031414 | East Preston with Kingston           | 15.9% | 13.0% | 33 | 8.2% | 46 | -13 |
| E01031382 | Aldwick East                         | 19.7% | 17.1% | 7  | 8.1% | 47 | -40 |
| E01031439 | Middleton-on-Sea                     | 13.5% | 14.0% | 25 | 8.1% | 48 | -23 |
| E01031398 | Beach (Littlehampton)                | 12.4% | 10.7% | 63 | 8.1% | 49 | +14 |
| E01031434 | Hotham (Bognor)                      | 11.2% | 9.2%  | 76 | 8.1% | 50 | +26 |
| E01031449 | Pagham and Rose Green                | 14.5% | 12.7% | 37 | 8.0% | 51 | -14 |
| E01031387 | Angmering                            | 14.2% | 12.5% | 39 | 8.0% | 52 | -13 |
| E01031430 | Ham (Littlehampton)                  | 15.0% | 10.8% | 61 | 8.0% | 53 | +8  |
| E01031396 | Barnham                              | 11.6% | 11.2% | 54 | 7.9% | 54 | 0   |
| E01031384 | Aldwick West                         | 12.4% | 11.8% | 47 | 7.8% | 55 | -8  |
| E01031417 | Felpham East                         | 11.2% | 10.0% | 73 | 7.8% | 56 | +17 |
| E01031441 | Orchard (Bognor)                     | 14.2% | 10.8% | 62 | 7.6% | 57 | +5  |
| E01031411 | East Preston with Kingston           | 14.4% | 14.9% | 18 | 7.5% | 58 | -40 |
| E01031433 | Hotham (Bognor)                      | 13.2% | 11.7% | 50 | 7.5% | 59 | -9  |
| E01031390 | Arundel                              | 12.3% | 10.4% | 67 | 7.5% | 60 | +7  |
| E01031455 | River (Littlehampton)                | 11.6% | 10.7% | 65 | 7.4% | 61 | +4  |
| E01031464 | Rustington West                      | 13.7% | 12.2% | 44 | 7.3% | 62 | -18 |
| E01031448 | Pagham and Rose Green                | 16.7% | 14.1% | 24 | 7.1% | 63 | -39 |
| E01031468 | Wick with Toddington (Littlehampton) | 11.8% | 9.0%  | 77 | 7.1% | 64 | +13 |
| E01031450 | Pevensey (Bognor)                    | 12.4% | 8.4%  | 80 | 7.1% | 65 | +15 |
| E01031473 | Yapton                               | 11.5% | 8.8%  | 78 | 7.0% | 66 | +12 |
| E01031457 | Rustington East                      | 14.1% | 12.9% | 35 | 6.9% | 67 | -32 |
| E01031446 | Pagham and Rose Green                | 13.9% | 12.1% | 45 | 6.9% | 68 | -23 |
| E01031427 | Ham (Littlehampton)                  | 14.1% | 10.1% | 72 | 6.9% | 69 | +3  |
| E01031380 | Aldwick East                         | 11.3% | 11.6% | 51 | 6.6% | 70 | -19 |
| E01031381 | Aldwick East                         | 11.3% | 11.2% | 53 | 6.6% | 71 | -18 |
| E01031395 | Barnham                              | 11.1% | 10.1% | 70 | 6.6% | 72 | -2  |
| E01031399 | Beach (Littlehampton)                | 13.7% | 12.4% | 41 | 6.5% | 73 | -32 |
| E01031405 | Bersted (Bognor)                     | 13.5% | 10.9% | 58 | 6.5% | 74 | -16 |
| E01031415 | East Preston with Kingston           | 13.9% | 12.9% | 34 | 6.4% | 75 | -41 |
| E01031385 | Aldwick West                         | 13.5% | 11.4% | 52 | 6.4% | 76 | -24 |
| E01031460 | Rustington West                      | 14.5% | 14.2% | 23 | 6.1% | 77 | -54 |
| E01031389 | Angmering                            | 10.0% | 10.2% | 69 | 6.0% | 78 | -9  |
| E01031451 | Pevensey (Bognor)                    | 10.4% | 7.7%  | 82 | 6.0% | 79 | +3  |
| E01031394 | Barnham                              | 9.2%  | 6.8%  | 88 | 5.8% | 80 | +8  |
| E01031445 | Pagham and Rose Green                | 13.6% | 10.7% | 64 | 5.4% | 81 | -17 |
| E01031459 | Rustington East                      | 10.5% | 8.4%  | 81 | 5.4% | 82 | -1  |
| E01031463 | Rustington West                      | 7.9%  | 7.0%  | 86 | 5.4% | 83 | +3  |
| E01031471 | Yapton                               | 6.4%  | 5.5%  | 92 | 5.2% | 84 | +8  |
| E01031470 | Yapton                               | 10.2% | 8.6%  | 79 | 5.1% | 85 | -6  |
| E01031404 | Bersted (Bognor)                     | 10.8% | 7.6%  | 83 | 4.8% | 86 | -3  |
| E01031402 | Bersted (Bognor)                     | 8.8%  | 7.0%  | 85 | 4.8% | 87 | -2  |
| E01031429 | Ham (Littlehampton)                  | 10.0% | 6.0%  | 91 | 4.7% | 88 | +3  |
| E01031438 | Middleton-on-Sea                     | 7.3%  | 6.9%  | 87 | 4.6% | 89 | -2  |
| E01031467 | Wick with Toddington (Littlehampton) | 8.7%  | 7.1%  | 84 | 4.3% | 90 | -6  |
| E01031408 | Brookfield (Littlehampton)           | 7.8%  | 6.1%  | 90 | 4.2% | 91 | -1  |
| E01031431 | Hotham (Bognor)                      | 7.7%  | 6.7%  | 89 | 3.6% | 92 | -3  |
| E01031410 | Brookfield (Littlehampton)           | 6.0%  | 4.4%  | 94 | 3.0% | 93 | +1  |
| E01031407 | Brookfield (Littlehampton)           | 4.9%  | 4.8%  | 93 | 2.6% | 94 | -1  |

## Appendix 6: Energy Glossary of Terms

|                                |   |  |
|--------------------------------|---|--|
| <b>ASHP</b>                    | Air Source Heat Pump                    | Low carbon technology for domestic and commercial space and water heating, requires electricity or additional technology to run pump – best with under floor heating systems. Eligible for RHI.  |
| <b>Affordable Warmth Group</b> |   | A term used by Government to describe certain low income vulnerable people who qualify for heating & insulation grants based on benefits they receive, income and also any dependent children/disabilities   |
| <b>Biomass</b>                 |   | Generic term for organic matter, also known as biofuels. Includes items such as wood fuel. Eligible for RHI.   |
| <b>BRE</b>                     | Building Research Establishment         | A former UK government establishment (but now private) that carries out research, consultancy and testing for the construction and built environment sectors in the United Kingdom   |
| <b>BREEAM</b>                  | Environmental assessment method         | An environmental assessment rating tool for new build developments (non-domestic) provided by BRE.   |
| <b>Carbon Footprint</b>        |   | A measure of the total greenhouse gas (GHG) emissions caused directly and indirectly by an organisation or individual; can be measured on a personal/national level, or according to a specific activity. Expressed in amount of CO <sub>2</sub> , or MtCO <sub>2</sub> e. |
| <b>Carbon Trust</b>            |   | An independent non-profit company set up by the Government with support from businesses to encourage and promote the development of low carbon technologies  |
| <b>CERT</b>                    | Carbon Emissions Reduction Target       | Old Energy Efficiency Commitment on utilities until end of 2012 (Has funded measures such as free low energy light bulbs, loft & cavity wall insulation). Now superseded by Energy Company Obligation (ECO)  |
| <b>CESP</b>                    | Community Energy Saving Programme       | Old area based Energy Efficiency Commitment on utilities until end of 2012 for specific income deprived communities (Aimed more at harder to treat homes needing solid wall insulation). The Council's 2012 project in Wick was a CESP project                             |
| <b>CHP</b>                     | Combined Heat and Power                 | Fuel is used to simultaneously produce electrical or power plus recover useful thermal energy for use in cooling & heating. Mainly commercial but domestic CHP available. Eligible for RHI.  |
| <b>CIGA</b>                    | Cavity Wall Insulation Guarantee Agency | Independent 25 year guarantees for professionally installed domestic cavity wall insulation  |
| <b>CO<sub>2</sub></b>          | Carbon Dioxide                          | An important greenhouse gas associated with climate change   |
| <b>CfSH</b>                    | Code for Sustainable Homes              | A progressive national planning standard for the sustainable design and construction of new homes measured from level 3-6. Aims to reduce emissions & promote standards of sustainable design above the standards set out in building regulations.                         |
| <b>CRC</b>                     | Carbon Reduction Commitment             | UK government emissions trading scheme for large organisations not eligible for EU Emissions Trading (ADC is too small for this)   |
| <b>CSCO</b>                    | Carbon Saving Communities Obligation    | Cross-tenure area-based part of the Energy Company Obligation (ECO) for specific income deprived communities in ranked in the bottom 20% of the IMD. Also opportunities outside low IMD areas for some low income rural homes.   |
| <b>CWI</b>                     | Cavity Wall Insulation                  | Insulation measure for cavity walls; filling the empty air space with a porous material (normally bonded expanded polystyrene beads or mineral fibre). Some cavities are “un-fillable” due to debris inside the cavity, uneven surface or structural issues.               |

|                             |   |   |
|-----------------------------|---|---|
| <b>DCLG or CLG</b>          | Communities and Local Government            | Central Government Department   |
| <b>DEA</b>                  | Domestic Energy Assessor                    | Someone who is trained to a diploma level to carry out home EPCs (may also be further trained to deliver DECs or GDAs)  |
| <b>DEC</b>                  | Display Energy Certificate                  | An Energy Performance Certificate tailored for commercial buildings   |
| <b>DECC</b>                 | Department of Energy and Climate Change     | Central Government Department   |
| <b>ECO</b>                  | Energy Company Obligation                   | New obligation from Government on energy companies to supersede CERT and CESP from end of 2012. Will partly provide grant funding for low income vulnerable customers but also subsidise green deal finance plans for hard to treat homes.  |
| <b>Ecological Footprint</b> | (Also referred to as Environment Footprint) | A measure of human consumption of natural resources in comparison to Earth's ecological capacity to regenerate them. Usually expressed in the number of planets we'd need.  |
| <b>EPC</b>                  | Energy Performance Certificate              | Domestic energy rating using RdSAP carried out by a DEA. Since 2008 EPCs are required for when houses are sold or new tenancies started. Not as in-depth as a Green Deal report.  |
| <b>EST</b>                  | Energy Saving Trust                         | A non-profit organisation aiming to promote the sustainable use of energy, energy conservation and to cut carbon dioxide emissions in the UK. Currently contracted to run the national, impartial Energy Saving Advice Service (ESAS).  |
| <b>ESCO</b>                 | Energy Services Company                     | Normally a deregulated organisation set up to provide energy services (electricity, heat and water) to defined users or a community separate from the regulated utilities serving the area  |
| <b>EWI</b>                  | External Wall Insulation                    | A thermally insulated, protective exterior cladding system for insulating solid wall and non-standard construction properties or homes with un-fillable cavities. Can be insulation & render system or a rain-screen cladding. Possible planning implications.  |
| <b>FIT</b>                  | Feed in Tariff                              | Started in the UK April 2010 but applies to systems installed from July 2009. It offers guaranteed payments from energy companies to households or businesses that produce their own electricity using renewable technologies. The name is slightly misleading as the FIT consists of a "generation" payment plus an "export" tariff for energy that is directly exported to the grid.      |
| <b>Fuel Poverty</b>         |   | The definition of a fuel poor household up until 2013 was a one that has to spend in excess of 10% of their disposable income on all fuel use in order to maintain a satisfactory heating regime. During 2013, this definition was superseded by the more complex "Low Income High Cost Indicator" developed by Professor John Hills, details are available on the DECC website.            |
| <b>Fracking</b>             | or Hydraulic Fracturing                     | New process being explored to extract natural gas from shale rock layers deep in the earth using horizontal & vertical drilling & injection of highly pressurised fracking fluids into the shale area.  |
| <b>Green Deal</b>           |   | The Green Deal is a new financial mechanism introduced in the UK from the end of 2012. It eliminates upfront cost for energy efficiency measures by charging costs to the property not the individual and spreading the repayments over the long-term on the electricity bill. Repayments follow a "golden rule" that they should reflect the savings expected from the measures installed. |

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| <b>GDAR</b>              | Green Deal Advice Report  | Similar to an EPC, but carried out by a more highly trained Green Deal Assessor. Report goes into greater depth & includes an occupancy assessment of the current residents. Green Deal finance can only be obtained following creation of a GDAR.   |
| <b>GHG</b>               | Greenhouse Gas[es]  | GHG includes water vapour (H <sub>2</sub> O), carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), halogenated fluorocarbons (HCFCs), ozone (O <sub>3</sub> ), perfluorinated carbons (PFCs), & hydrofluorocarbons (HFCs)  |
| <b>GSHP</b>              | Ground Source Heat Pump   | Low carbon technology for space and water heating, requires electricity or additional renewable technology to run pump – best used with under floor heating systems. Eligible for RHI  |
| <b>HTT Homes</b>         | Hard to Treat Homes   | Homes where you are unable to improve energy efficiency with lower-cost measures such as cavity wall insulation, due to the age of a property or nature of construction. Might be ‘off-gas,’ with more expensive heating fuels or medium-high rise blocks of flats. Hard-to-treat homes are often difficult and costly to heat.                                |
| <b>HECA</b>              | Home Energy Conservation Act  | Introduced in 1995, HECA recognises local authorities’ ability to use their position to significantly improve the energy efficiency of local accommodation. From March 2013 DECC require biennial “further HECA reports” from all Local Authorities.   |
| <b>HEED</b>              | Home Energy Efficiency Database   | Database on housing stock and energy activities collected and managed by the Energy Saving Trust. Accessible for free by registered Local Authorities.   |
| <b>HHCRO</b>             | Home Heat Cost Reduction Obligation (or “Affordable Warmth Obligation”) | Part of the Energy Company Obligation (ECO), focused on fuel poverty and grants for heating insulation for residents that qualify for the “Affordable Warmth Group”. Only private sector residents can be eligible.  |
| <b>HHH</b>               | Home Heat Helpline  | Freephone helpline for domestic market owned by the big 6 energy companies and designed to help vulnerable consumers   |
| <b>IMD</b>               | Index of Multiple Deprivation   | The Index of Multiple Deprivation covers a range of economic, social and housing issues and gives an overall deprivation score for each small area in England. This allows each area to be ranked relative to one another according to their level of deprivation. IMD rank can be reported at County, District, Ward or LSOA (Lower Super Output Area) level. |
| <b>IWI</b>               | Internal Wall Insulation  | Energy measure used for improving solid wall and non-standard construction properties or homes with un-fillable cavities; can use rigid insulation boards, or fill a stud wall. IWI should not be used to cover, hide or isolate damp as this could lead to serious problems in the future. Can be very disruptive to residents.                               |
| <b>LIHC</b>              | Low Income High Cost Indicator  | Method for calculating households in fuel poverty, adopted by DECC in mid-2013 to replace the previous “10% definition”.   |
| <b>MCS</b>               | Microgeneration Certification Scheme                                    | Renewable energy systems and installers accreditation scheme (MCS is part of the eligibility criteria to claim the FIT)  |
| <b>Microgeneration</b>   |   | Renewable electricity generation equipment of the smallest capacity which generates electricity up to 50 kWe.  |
| <b>MtCO<sub>2</sub>e</b> | Million Tonne Carbon Dioxide Equivalent                                 | Takes into account the varying impact of other GHG on the atmosphere and their potency and offers a single “equivalent” figure.  |
| <b>NEA</b>               | National Energy Action  | National charity aiming to eradicate fuel poverty. Campaigns for greater investment in energy efficiency to help those who are poor or vulnerable  |



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| <b>Ofgem</b>         | Office for Gas and Electricity Markets       | Regulator of gas and electricity markets for Great Britain   |
| <b>RDSAP</b>         | Reduced data Standard Assessment Procedure   | System used to produce EPCs and Green Deal reports   |
| <b>RHI</b>           | Renewable Heat Incentive                     | Government incentive scheme launched in 2011 to financially reward those who generate renewable heat. Initially for only industrial, commercial, public sector and community organisations, but phase 2 for domestic starts spring 2014.   |
| <b>RO</b>            | Renewable Obligation                         | The RO requires power suppliers to derive from renewables a specified proportion of the electricity they supply to their customers. This started at 3% in 2003, rising gradually to 10.4% by 2010, and 15.4% by 2015.  |
| <b>ROC</b>           | Renewable Obligation Certificate             | Eligible renewable generators receive ROCs for each MWh of electricity generated. These certificates can then be sold to suppliers to fulfil their Renewables Obligation (see above).  |
| <b>SAP</b>           | Standard Assessment Procedure                | System used to produce detailed home energy assessment reports, mainly superseded by the easier to carry out "RDSAP method" since 2008.  |
| <b>SEDBUK</b>        | Seasonal Efficiency Database of Boilers (UK) | Comprehensive database of all boilers supplied in the UK showing their expected seasonal efficiency  |
| <b>(Solar) BIPV</b>  | Building Integrated Solar Photovoltaics      | Solar photovoltaic materials that are used to replace building materials in parts of the building envelope such as the roof, skylights, or facades.  |
| <b>Solar Thermal</b> | Solar Hot Water                              | Solar panels that generate domestic hot water only. These can be either a flat plate or evacuated tube design. Eligible for RHI.   |
| <b>Solar PV</b>      | Solar Photovoltaics                          | Solar panels that generate electricity only. Eligible for FIT.   |
| <b>Solar PVT</b>     | Solar Photovoltaics/Thermal                  | A new efficient breed of hybrid solar panels that focus on use of better PV components but also take the heat generated by the solar panels & create an incorporated solar thermal system  |
| <b>SWI</b>           | Solid Wall Insulation                        | Generic term for both internal and external wall insulation solutions.   |
| <b>SWIGA</b>         | Solid Wall Insulation Guarantee Agency       | New scheme providing independent guarantees for professionally installed solid wall insulation   |
| <b>WF</b>            | Warm Front                                   | Government funded heating and insulation grant scheme for vulnerable households on benefits living in poorly insulated properties. Scheme ended March 2013 & won't reopen.   |
| <b>WHD</b>           | Warm Home Discount                           | Scheme planned to run for four years from Oct 2011. Qualifying households receive £130 credit towards the electricity bill (in addition to winter fuel payment). Scheme supersedes previous "social tariff" schemes. Discounts will be paid and funded by participating electricity suppliers. |